



5TE

Soil Moisture, Temperature, and Electrical Conductivity Sensor



Full-Featured Soil Moisture Sensor

Monitors bulk electrical conductivity (EC), volumetric water content (VWC) and soil temperature.

Overview

The 5TE is a full-featured soil moisture sensor that can measure volumetric water content (VWC), temperature and electrical conductivity (EC) in soil.

The 5TE sensor is only 5 cm long and is equipped with three-prongs that can only be used in soil. The 5TE sensor uses high frequency oscillation and patented signal filtering to deliver excellent accuracy with minimal textural effects. The 5TE sensor comes standard with serial or SDI-12 communication, making it easy to integrate into many other systems.

The 5TE enables users to measure the EC response to salts and fertilizers in the soil.

The 5TE helps determining VWC by measuring the dielectric constant of the media using capacitance/frequency domain technology. The sensor uses a 70 MHz frequency, which minimizes salinity and textural effects, making the 5TE accurate in most soils. The 5TE measures temperature with an onboard thermistor, and electrical conductivity using a stainless steel electrode array. Temperature and electrical conductivity are factory calibrated for all soil types.

The 5TE's small size makes it easy to install in any field and/or greenhouse.

Specifications

Range	VWC: 0 – 100%
EC (bulk)	0-23 dS/m (bulk)
Temperature	-40°C to 50°C
Resolution	VWC: 0.08% from 0 to 50% VWC
Power	3-16 VDC
Measurement Time	10 ms

Output	SDI-12
Operating Temperature	-40°C to 50°C
Connector Types	Stripped and tinned lead wires.
Cable Length	Cable length 5 m default
Dimensions	14.5 cm x 3.3 cm x 0.7 cm
Datalogger Compatibility	* Campbell Scientific: CR10X, CR850, 1000, 3000, etc.

For comprehensive details, visit: www.campbellsci.ca/5te



Campbell Scientific (Canada) Corp. | 14532 131 Avenue NW | Edmonton AB T5L 4X4 | 780.454.2505 | www.campbellsci.ca
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